



EXAMINATION ANNOUNCEMENT

CALIFORNIA ENERGY COMMISSION

ENERGY COMMISSION SPECIALIST II (Forecasting)

OPEN

EXAMINATION PLAN

The entire examination will consist of a Supplemental Application weighted 100%. In order to obtain a position on the eligible list, a minimum of 70% must be attained in the interview.

Applicants in the examination will be required to submit responses to questions contained in the Supplemental Questionnaire Application which are designed to identify job achievements in specific areas that demonstrate the ability to successfully perform at this level. **Applicants who do not submit complete information will be eliminated from the examination.**

FILING INSTRUCTIONS

CONTINUOUS TESTING – NO FINAL FILING DATE – Testing is considered continuous as dates can be set at any time. You may apply only once in any consecutive 12 month period. State Applications (STD 678) will be accepted on a continuous basis and examinations will be scheduled as needed. State Applications and/or resumes submitted via facsimile (FAX) machines, or electronically mailed (e-mail) will not be accepted.

FILE BY MAIL OR IN PERSON WITH:

California Energy Commission
Selection, Training & EEO Office - ECS II (FO)
1516 Ninth Street, MS-52
Sacramento, CA 95814

Please submit one (1) State Application (STD 678) AND one (1) Supplemental Questionnaire Application for EACH classification level for which you are applying.

DO NOT SEND APPLICATIONS AND/OR SUPPLEMENTAL APPLICATIONS TO THE STATE PERSONNEL BOARD

A mandatory Supplemental Questionnaire Application **must** be completed and submitted with a standard State Application (STD 678). To obtain the Supplemental Questionnaire Application, go to...and for the State Application, go to...You can also obtain State Applications at the State Personnel Board, any Employment Development Department in California, or the California Energy Commission. **State Applications received without the Supplemental Questionnaire Application or vice versa will not be accepted.** If you have any questions, please call the Selection Office at (916) 653-6532.

Accepted applicants are required to bring either a photo identification card or two forms of signed identification to each phase of the examination.

SPECIAL TESTING ARRANGEMENTS

If you have a disability and need special testing arrangements, mark question #2 of the "Application for Examination." You will be contacted to make specific arrangements.

SALARY RANGE

\$5309 - \$6404

ENERGY COMMISSION SPECIALIST II (FO)
BJ32 – 4948
8ERF101

www.energy.ca.gov
(916) 653-6532

Final File Date: CONTINUOUS TESTING

EQUAL EMPLOYMENT OPPORTUNITY TO ALL REGARDLESS OF RACE, COLOR, CREED, NATIONAL ORIGIN, ANCESTRY, SEX, MARITAL STATUS, DISABILITY, RELIGIOUS OR POLITICAL AFFILIATION, AGE OR SEXUAL ORIENTATION

**REQUIREMENTS FOR
ADMITTANCE TO THE
EXAMINATION**

It is your responsibility to make sure you meet the education and/or experience requirements stated below by the final filing date. Your signature on your application indicates you have read, understood and possess the basic qualifications required. **All applications/resumes must include: "to" and "from" dates (month/day/year); time base (full-time/part-time/number of hours per week/month); and civil service class titles where applicable. Applications/resumes received without this information will be rejected.**

**MINIMUM
QUALIFICATIONS**

Qualifying experience may be combined on a proportionate basis if the requirements stated below include more than one pattern and are distinguished as "Either" I, "or" II, etc. For example, candidates possessing qualifying experience amounting to 50% of the required time of Pattern I, and additional experience amounting to 50% of the required time of Pattern II, may be admitted to an examination as meeting 100% of the overall experience requirement.

Either I

In the California state service, one year of experience performing forecasting duties in areas related to supply and demand of electricity, fuels, transportation and other energy uses; energy pricing; shortage contingency planning; including duties such as econometric modeling, linear programming, and cost benefit analysis at a level of responsibility equivalent to Energy Commission Specialist I.

Or II

In the California state service, two years of experience performing forecasting duties in areas related to supply and demand of electricity, fuels, transportation and other energy uses; energy pricing; shortage contingency planning; including duties such as econometric modeling, linear programming, and cost benefit analysis at a level of responsibility equivalent to Associate Energy Specialist.

Or III

Five years of responsible technical experience in one or more of the areas described in Pattern I above, including four years of experience above the trainee level. A master's degree in a field related to one of the specialties may be substituted for one year of experience; while a doctoral degree may be substituted for two years of the required experience. Only one postgraduate degree may be counted towards experience. (Completion of dissertation research for a doctoral degree in a field appropriate to one of the Energy Commission specialties may be substituted for up to one year of the required experience.)

(Experience in the California state service applied toward this pattern must include at least one year performing the duties in a class with a level of responsibility equivalent to Energy Commission Specialist I.)

The following education is required when non-California state service experience is used to qualify at any level. Equivalent to graduation from college. Additional experience may be substituted for the required education on a year-for-year basis.

THE POSITION

The Energy Commission Specialist II (FO) positions are identified by top Commission management as requiring the service of the most highly skilled practitioners who serve as prime resources and innovators in energy-related subjects which are the most sensitive and complex due to the rapid development in the subject area, extremely high legislative and media attention and multistate impact.

Incumbents provide expert guidance on highly complex and technical problems; and provide expert consultation services within the area of expertise.

Incumbents may also serve as project leaders to address broad national issues such as global warming. Such major projects are characterized by their multidisciplinary scope and/or interstate impact.

One incumbent may also serve as the CEC's Assistant Demand Forecaster.

Positions exist in Sacramento with the California Energy Commission.

SCOPE

Questions in the Supplemental Application are designed to test broad knowledge of the topic under consideration and candidates should be prepared to respond to a wide variety of issues, both technical and procedural.

KNOWLEDGE OF

1. A wide range of electricity, fuels and energy technologies and associated forecasting methodologies and issues;
 2. Energy demand forecasts and supply analytic methodologies, energy policy issues affecting or resulting from energy technology development, and energy project management techniques;
 3. California Public Resource Code pertaining to energy resources conservation and development;
 4. Principles of physical sciences and engineering involved in fuels and energy production, transmission, utilization and conservation;
 5. Principles of econometric, engineering and end-use energy demand forecasting, conservation impacts forecasting, fuel and electricity price forecasting, new demand-reducing technologies growth forecasting, computer modeling, statistical sample design, data collection, data base development and monitoring, utility and other forecasting methods;
 6. Commercially available energy conservation and alternative energy generation technologies;
 7. Principles of engineering economics, financial analysis, and economic theory as it pertains to energy supply and demand;
 8. Energy technology costs and cost-accounting methods;
 9. Industrial energy conversion technologies, thermodynamic analysis of heat loads in buildings, and direct energy use surveys;
 10. General provisions of social and economic implications of fuels and energy demand forecasting, resource planning and facility construction;
 11. Recent research and development projects related to the use of electricity, petroleum, natural gas, biomass and other synthetic fuels;
 12. Principles and procedures of environmental impact assessment, energy supply and demand forecasting, safety standards review and assessment, and fuels development and utilization;
 13. Principles of program evaluation and planning and energy policy analysis and formulation;
 14. Decision theory, probabilistic risk assessment, and techniques of comparative evaluation;
 15. Federal, State and local governments, utilities and private agencies involved in energy forecasting, research and regulation;
 16. A variety of analytical and research techniques to resolve complex and policy sensitive issues and technical problems;
 17. Significant trends and issues reported in the energy literature;
 18. Theory and practice of utility planning and regulation, in general, and as implemented in California;
 19. Energy efficiency, conservation, planning, forecasting and research methods including problem definition, data acquisition, and analytical techniques;
 20. Other Federal, State and local energy-related environmental goals, policies and organizations.
-

ABILITY TO

1. Reason logically and creatively and use a variety of analytical and research techniques to resolve complex electric energy and fuels development, energy conservation and development programs;
 2. Utilize available computer systems for data base and/or computational applications;
 3. Develop and use complex computer programs and forecasting models;
 4. Develop and evaluate fuel alternatives;
 5. Perform policy analysis and formulate policy recommendations;
 6. Act as team or project leader;
 7. Manage contracts;
 8. Analyze energy data and present ideas and information effectively both orally and in writing;
-

-
9. Gain and maintain the confidence and cooperation of those contacted during the course of work;
 10. Acquire and prepare energy use and other data relevant to energy demand forecasting and fuel-related issues;
 11. Critique and diagnose the performance of energy forecasting and resource planning and policy forecasting models;
 12. Evaluate and quantify the effect of conservation programs on energy demand;
 13. Present ideas and analysis cogently and effectively;
 14. Consult with and advise Office Managers, Division Administrators, Commissioners and other interested members of the State energy community on a wide variety of forecasting and fuel-related subject-matter areas;
 15. Analyze situations accurately, take effective action and act independently within the guidelines set forth by the Commission;
 16. Coordinate the complex technical work of others, act as a team, project, task or conference leader to analyze the more technical and complex situations accurately and take effective action;
 17. Establish and maintain project priorities;
 18. Testify as subject matter expert (forecasting, fuels, energy policies, major Commission policy reports) before the Commission and other groups;
 19. Serve as the Commission's top adviser in such areas;
 20. Effectively employ computer techniques for problem solving;
 21. Consult with and advise Commission management on a wide variety of energy forecasting, modeling and fuel-related issues and topics.
-

**ELIGIBLE LIST
INFORMATION**

Names of successful competitors are merged into the list in order of final scores regardless of date. Eligibility expires 12 months after it is established.

**VETERANS
PREFERENCE POINTS**

WILL NOT BE GRANTED IN THIS EXAMINATION

CAREER CREDITS

DO NOT APPLY IN THIS EXAMINATION

ONLY INDIVIDUALS LAWFULLY AUTHORIZED TO WORK IN THE UNITED STATES WILL BE HIRED

GENERAL INFORMATION

For an examination without a written feature it is the candidate's responsibility to contact the Examination Unit at (916) 653-6532, three weeks after the final filing date if he/she has not received a progress notice. If a candidate's notice of oral interview or performance test fails to reach him/her prior to the day of the interview due to a verified postal error, he/she will be rescheduled upon written request.

If you meet the requirements stated on the reverse, you may take this examination, which is competitive. Possession of the entrance requirement does not assure a place on the eligible list. Your performance in the examination will be compared with the performance of the others who take this test, and all candidates who pass will be ranked according to their scores.

The California Energy Commission reserves the right to revise the examination plan to better meet the needs of the service if the circumstances under which this examination was planned change. Such revision will be in accordance with civil service laws and rules and all competitors will be notified.

Eligible Lists: Eligible lists established by competitive examination, regardless of date, must be used in the following order: 1) subdivisional promotional, 2) departmental promotional, 3) multidepartmental promotional, 4) servicewide promotional, 5) open eligible list. When there are two lists of the same kind, the older must be used first.

General Qualifications: Candidates must possess essential personal qualifications including integrity, initiative, dependability, good judgment and ability to work cooperatively with others; and a state of health consistent with the ability to perform the assigned duties of the class. A medical examination may be required. In open examinations, investigation may be made of employment records and personal history, and fingerprinting may be required.

Promotional Examination Only: Competition is limited to employees who have permanent civil service appointment. Under certain circumstances, other employees may be allowed to compete under provisions of Rules 234, 235, and 235.2. State Personnel Board Rules 233, 234, 235, 235.2 and 237 contain provisions regarding civil service status and eligibility for promotional examinations. These rules may be reviewed at departmental personnel offices or at State Personnel Board offices.

DO NOT SEND APPLICATIONS TO THE STATE PERSONNEL BOARD

California Relay (Telephone) Service for the Deaf or Hearing Impaired
From TDD Phones: 1-800-735-2929 – From Voice Phones 1-800-735-2922

TDD is a Telecommunication Device for the Deaf and is reachable only from telephones equipped with a TDD device.

IT IS AN OBJECTIVE OF THE STATE OF CALIFORNIA TO ACHIEVE A DRUG-FREE WORK PLACE. ANY APPLICANT FOR STATE EMPLOYMENT WILL BE EXPECTED TO BEHAVE IN ACCORDANCE WITH THIS OBJECTIVE BECAUSE THE USE OF ILLEGAL DRUGS IS INCONSISTENT WITH THE LAW OF THE STATE, THE RULES GOVERNING CIVIL SERVICE, AND THE SPECIAL TRUST PLACED IN PUBLIC SERVANTS.



**CALIFORNIA ENERGY COMMISSION
SELECTION TRAINING AND EEO OFFICE
ENERGY COMMISSION SPECIALIST II/III (FORECASTING)
SUPPLEMENTAL APPLICATION**

The California Energy Commission's (CEC) Energy Commission Specialist II/III (Forecasting) examinations are being given on a promotional basis. The examination will consist solely of this Self-Assessment Supplemental Application Questionnaire (the questionnaire).

This questionnaire is designed to elicit a range of specific information regarding each candidate's knowledge, abilities, and experience to effectively perform the duties relative to the classification. Candidates are responsible for reading all of the material provided prior to completing this questionnaire. Responses will be evaluated using predetermined rating criteria. In order to obtain a position on the eligible list, a minimum rating of 70% must be attained. Please answer questions completely since incomplete responses and omitted information cannot be considered or assumed. Resumes, letters of reference, and other materials will **not** be evaluated or considered as responses to items in the Supplemental Application questionnaire.

NOTE: Failure to complete this questionnaire accurately will result in elimination from this examination.) *Candidates who fail to follow the instructions will be eliminated from the examination.*

IT IS IMPORTANT THAT YOU RETAIN A COPY OF THIS SUPPLEMENTAL APPLICATION QUESTIONNAIRE FOR YOUR RECORDS. The California Energy Commission will **NOT** provide you a copy of your supplemental application questionnaire.

THIS AFFIRMATION MUST BE COMPLETED

I hereby certify and understand that the information provided by me on this supplemental application questionnaire is true and complete to the best of my knowledge and contains no willful misrepresentation or falsifications. I understand this information may be verified. **I also understand that if it is discovered that I have made any false representations, I will be removed from the examination process, removed from the list resulting from the examination, may not be allowed to compete in future examinations for State employment and I may be subject to prosecution for misdemeanor or felony offenses under California law. Additionally, State employees may have adverse action taken against them up to and including dismissal.**

SIGNATURE: _____ **DATE:** _____

NAME (PRINTED): _____

EXAMINATION TITLE(S): _____

Failure to submit your supplemental application will result in elimination from the examination. Submit/mail your Supplemental Application questionnaire to:

**California Energy Commission
Selection, Training and EEO (ECS II/III (FO))
1516 9th Street
Sacramento, CA 95814**

**Energy Commission Specialist II/III (Forecasting)
SUPPLEMENTAL APPLICATION**

Print Name _____ **Date** _____

PART I - EMPLOYMENT HISTORY

Instructions: Please describe your current and most recent work experience as it relates to the Energy Commission Specialist III (Forecasting) position. Begin with your most recent position. The *EXPERIENCE CODE* will be used in Part II to identify where you worked. You may include additional pages if necessary.

EXPERIENCE CODE A

Employer Name: _____
Employer Location: City: _____ State: _____
Dates of Employment: From: _____ To: _____
Supervisor: _____ Telephone Number: _____

EXPERIENCE CODE B

Employer Name: _____
Employer Location: City: _____ State: _____
Dates of Employment: From: _____ To: _____
Supervisor: _____ Telephone Number: _____

EXPERIENCE CODE C

Employer Name: _____
Employer Location: City: _____ State: _____
Dates of Employment: From: _____ To: _____
Supervisor: _____ Telephone Number: _____

EXPERIENCE CODE D

Employer Name: _____
Employer Location: City: _____ State: _____
Dates of Employment: From: _____ To: _____
Supervisor: _____ Telephone Number: _____

Energy Commission Specialist II/III (Forecasting) SUPPLEMENTAL APPLICATION

PART II - WORK EXPERIENCE

The Energy Commission Specialist III (Forecasting) classification is responsible for research and forecasting of supply and demand for electricity, natural gas, or transportation fuels; design and analysis of survey, metering and other data; analysis of energy markets and impacts of government regulations; energy infrastructure assessment; estimation of energy prices; and cost-benefit analysis. Incumbents develop and use models to run scenarios to estimate the effects of various conditions, and to develop and analyze legislation and policies. This section of the application lists activities and requirements necessary for successful job performance. Using the following steps, indicate your level of proficiency and experience for each item.

Instructions

Step 1: In the *Experience Code* column, use the codes from PART I of this form to indicate where you performed the activity, or acquired the task or knowledge. You may list more than one code per item if applicable.

Step 2: For each item listed on pages 4 in rows "1" through "10", please place an "X" in the column that most accurately represents the experience you have with the following task. Place an "X" in the column which identifies the amount of your experience for each item.

SAMPLE

| | | Experience Code(s) | EXPERIENCE | | | | | AMOUNT OF TIME | | | |
|----|--|--------------------|--|---|---|--|--------------------------------------|---------------------------------------|---------------------------------------|--|--|
| | | | I have had no education, training, or experience with this task. | I have had education or training on this task, but no application on the job. | I have performed this task on the job under normal supervision. | I have performed this task independently on the job with little supervision. | I possess 0 to 1 year of experience. | I possess 1 to 3 years of experience. | I possess 3 to 5 years of experience. | I possess 5 or more years of experience. | |
| 1. | (Sample Item) Prepares reports for company. | A & C | | | | X | | | X | | |

Energy Commission Specialist II/III (Forecasting)

SUPPLEMENTAL APPLICATION - PART II (CONTINUED)

PRINT NAME _____

INSTRUCTIONS: • In the *Experience Code* column, use the codes from PART I of this form to indicate where you performed the activity or task. You may list more than one code per item if applicable.

For each item listed below in rows "1 through 14", place ONE "X" in the column which most accurately represents the type of experience you have with the following items. Also, place ONE "X" in the column which identifies the amount of your experience for each item.

| | | Experience Code(s) (FROM PART I) | EXPERIENCE | | | | AMOUNT OF TIME | | | |
|-----|---|----------------------------------|--|---|---|--------------------------------------|---------------------------------------|---------------------------------------|--|--|
| | I have had no education, training, or experience with this. | | I have had education or training, but no application on the job. | I have performed this task on the job under normal supervision. | I have performed this task independently with little supervision. | I possess 0 to 1 year of experience. | I possess 1 to 3 years of experience. | I possess 4 to 5 years of experience. | I possess more than 5 years of experience. | |
| 1. | Advanced econometrics and statistical modeling principles for examining energy use issues and forecasting demand/supply and pricing. | | | | | | | | | |
| 2. | Advanced academic or practical discipline that would support energy demand and supply analysis (such as economics, engineering, statistics, sociology, meteorology, topics such as transportation of fuels, functioning of refineries, the distribution infrastructure). | | | | | | | | | |
| 3. | Basic data collection methods and techniques to ensure the accurate collection of meaningful data (including fieldwork, library searches, paper and phone survey research). | | | | | | | | | |
| 4. | Data analysis methods and techniques to draw appropriate conclusions and make recommendations regarding a set of data. | | | | | | | | | |
| 5. | Dynamic interactions of supply and demand in energy markets. | | | | | | | | | |
| 6. | Skill to assess dynamic interactions of supply and demand in energy markets. | | | | | | | | | |
| 7. | Financial principles for estimating cost effectiveness of all energy options (such efficiency technologies, alternative generation investment options, transportation technologies). | | | | | | | | | |
| 8. | Skill to make formal or informal presentations to co-workers, governmental personnel, community groups, professional/scientific societies, hearings, workshops, etc. regarding various topics (e.g., results of analysis, policies and procedures, scientific studies) to facilitate the sharing of information | | | | | | | | | |
| 9. | Basic statistical concepts (such as mean, standard deviation, and variance) sufficient to analyze a set of data, check facts, and interpret information. | | | | | | | | | |
| 10. | Skill to write reports, memos, letters, summaries, notes, and other job-related documents using proper sentence structure, grammar, punctuation, and spelling to ensure complete and succinct written materials. | | | | | | | | | |
| 11. | Skill to negotiate and compromise when resolving issues involving differing opinions. | | | | | | | | | |
| 12. | Skill to identify facts and implications related to a situation and the pros and cons of proposed alternatives before drawing conclusions and making recommendations. | | | | | | | | | |
| 13. | Skill to use specialized software to perform modeling and analyses to forecast energy demand and prices or consumption analysis. | | | | | | | | | |
| 14. | Skill to identify and obtain information, materials, and resources needed to complete work assignments. | | | | | | | | | |

Energy Commission Specialist II/III (Forecasting)

PART III - PROJECT EXPERIENCE

Projects are defined as major or significant work to produce such products as reports to the Governor, Legislature, policy reports, or major activities under the direct oversight of the Executive Office or policy committee.

PRINT NAME _____

| PROJECT :PURPOSE & PRODUCT NAME(S) |
|--|
| List up to three projects in which you have participated. Please describe the purpose of each project and its final product. For each project you identify, fill in the boxes based on the experience in months or percentages (on an equivalent full-time basis). |
| 1. |
| 2. |
| 3. |

| Length of Involvement in Project (Months) | | | Your Role(s) on Project (Months) (Cannot Exceed Length of Involvement in Project) | | | Your Project Responsibilities (%) (Total allocation should not exceed 100%) | | | Project Method | | | Project Team (Total number of people) | | |
|---|--|--|---|----------------|-------------------|---|--------------------|----------------------------------|------------------|-------------------------|--|---------------------------------------|----------------------|------------------|
| | | | Principal Investigator/Researcher | Project Leader | Technical Analyst | Scoping/Planning/Scheduling | Technical Analysis | Finalizing a Deliverable Product | Routine, Defined | Non-Standard, Undefined | | One to two members | Three to six members | Over six members |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

**Energy Commission Specialist II/III (Forecasting)
Supplemental Application**

PART IV – NARRATIVE QUESTIONS

You are being given two (2) questions on the following pages for which you are to provide a narrative response.

Instructions

- Your response to each question **must** be typed using 12 point font or larger, with margins of **at least .5"**.
- Your response to each question **must** be limited to (1) page per question (for a total of 2 pages).
- Answer each question on a separate page and indicate the corresponding number for each response.
- Include the name of the examination, your name, and date on each page.

SAMPLE

Energy Commission Specialist III (Forecasting)

Name _____ **Date** _____

Question #1.

**Energy Commission Specialist II/III (Forecasting)
Supplemental Application**

MODEL DESIGN AND DEVELOPMENT

The Energy Commission is mandated to produce an Integrated Energy Policy Report (IEPR) every two years. Energy demand forecasts for electricity, natural gas, and transportation fuel supplies are a part of the IEPR.

Select one energy form, electricity, natural gas, or transportation fuel. Briefly describe how your selected energy demand forecast would be used in developing energy policies. In addition, identify and describe the factors you would consider and how they would be used in developing the forecast. Lastly, describe the process and steps you would take in developing the energy demand forecast for the IEPR.

- A. Briefly describe how energy demand forecasts would be used in developing energy policies.
- B. Identify the major factors you would consider and explain their purposes in developing the forecast.
- C. Describe the process and steps you would take in developing the energy demand forecasts for the IEPR.

**Energy Commission Specialist II/III (Forecasting)
Supplemental Application**

DATA ANALYSIS AND TOOLS

1. To estimate the present net benefit of photovoltaics (PV) to California,
 - how would you conduct the cost-benefit analysis; **and**
 - what information would you need to complete the assignment?